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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,288	07/08/2003	Wen-Chang Chang	LKSP0016USA	1287

27765 7590 05/16/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER
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THOMAS, LUCY M

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/604,288

Applicant(s)

CHANG ET AL.

Examiner

Lucy Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/11/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's acknowledged Prior Art in view of Enjeti et al. (US 6,005,362). Regarding Claim 1, Applicant's acknowledged Prior Art teaches a control circuit for preventing equipment from being damaged by voltage sag comprising: a turn-on button 18, a magnetic switch 13 comprising a winding 14, an normal open connection 16 and at least one main connection 17, the normal open connection and the main connection electrically connecting to circuits of a main power source through a magnetic field generated by a current supplied to the winding so as to provide power to at least one equipment 22.

Applicant's acknowledged Prior Art does not disclose a modular circuit comprising a rectifier and a electricity storing device, the rectifier providing a direct current (DC) to the control circuit, wherein the electricity storing device is charged with the DC current as the DC current is conducted to the control circuit by the turn-on button of the control circuit, and is discharged to supply current to the winding as voltage sag occurs for preventing the disconnection between the normal open connection the main connection (see Figure 1, Paragraph 5).

Enjeti discloses a control circuit for preventing equipment from being damaged by voltage sag (see Figures 3, 5), comprising a modular circuit comprising a rectifier (see 14 and D7-D9) and an electricity storing device (see 16, 57 or 92), the rectifier providing a direct current (DC) to the control circuit (Column 1, lines 14-17, Column 3, lines 35-67, Column 5, lines 41-54). It would have been obvious to those skilled in the art at the time the invention was made to modify the control circuit of the acknowledged Prior Art with a modular circuit comprising the rectifier and the electricity storing device as taught by Enjeti, to eliminate fluctuation in DC voltage to allow for a system to ride through a voltage sag, to avoid nuisance tripping which occur in continuous process industries and thus to minimize loss in revenue and other costs.

Regarding Claim 2, Applicant's acknowledged Prior Art discloses the control circuit, further comprises a shutdown button 20 for disconnecting the DC current to the control circuit.

Regarding Claim 3, Enjeti discloses the control, wherein the control circuit further comprises a main power source 12 (see Figure 5) for providing alternating current (AC) to the modular circuit.

Regarding Claim 4, Enjeti discloses the control circuit, wherein the electricity storing device is a capacitor (Column 5, lines 44-46).

Regarding Claim 5, Enjeti discloses the control circuit, wherein the electricity storing device is a battery (Column 5, lines 44-46). Enjeti does not specify the battery as rechargeable. It would have been obvious to those skilled in the art at the time the

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invention was made to provide a rechargeable battery as an electricity storing device being cost effective compared to other electricity storing devices.

Regarding Claim 6, Applicant's acknowledged Prior Art teaches a control circuit for preventing equipment from being damaged by voltage sag comprising: a turn-on button 18, a magnetic switch 13 comprising a winding 14, an normal open connection 16 and at least one main connection 17, the normal open connection and the main connection electrically connecting to circuits of a main power source through a magnetic field generated by a current supplied to the winding so as to provide power to at least one equipment 22.

Applicant's acknowledged Prior Art does not disclose a modular circuit comprising a rectifier and a electricity storing device, wherein an AC current of the main power source is conducted to the control circuit by the turn-on button, the electricity storing device is charged with a DC current rectified from the AC current by utilizing the rectifier, and is discharged to supply current to the winding as voltage sag occurs for preventing the disconnection between the normal open connection and the main connection (see Figure 1, Paragraph 5).

Enjeti discloses a control circuit for preventing equipment from being damaged by voltage sag (see Figures 3,5), comprising a modular circuit comprising a rectifier (see 14 and D7-D9) and an electricity storing device (see 16, 57 or 92) wherein an AC current of the main power source is conducted to the control circuit by the turn-on button, the electricity storing device is charged with a DC current rectified from the AC current by utilizing the rectifier (Column 1, lines 14-17, Column 3, lines 35-67, Column

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5, lines 41-54). It would have been obvious to those skilled in the art at the time the invention was made to modify the control circuit of the acknowledged Prior Art with a modular circuit comprising the rectifier and the electricity storing device as taught by Enjeti, to eliminate fluctuation in DC voltage to allow for a system to ride through a voltage sag, to avoid nuisance tripping which occur in continuous process industries and thus to minimize loss in revenue and other costs.

Regarding Claim 7, Applicant's acknowledged Prior Art discloses the control circuit, further comprises a shutdown button 20 for disconnecting the DC current to the control circuit.

Regarding Claim 8, Enjeti discloses the control circuit, wherein the electricity storing device is a capacitor (Column 5, lines 44-46).

Regarding Claim 9, Enjeti discloses the control circuit, wherein the electricity storing device is a rechargeable battery (Column 5, lines 44-46). Enjeti does not specify the battery as rechargeable. It would have been obvious to those skilled in the art at the time the invention was made to provide a rechargeable battery as an electricity storing device being cost effective compared to other electricity storing devices.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3,465,244.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy Thomas whose telephone number is 571-272-

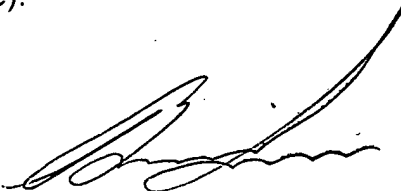
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6002. The examiner can normally be reached on Monday - Friday 8:00 AM - 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT  
May 04, 2006



BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2836